GE Electronic TUBE
KEN-RAD

# 58

## Description and Rating

# RADIO-FREQUENCY-AMPLIFIER PENTODE

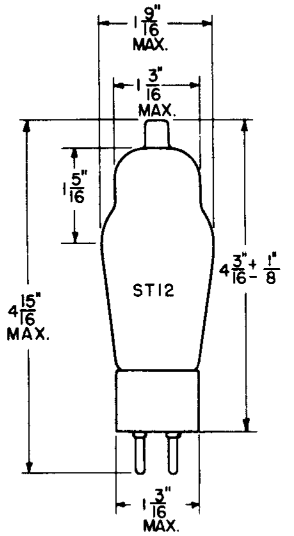
## GENERAL DESCRIPTION

Principal Application: The 58 is a heater-cathode type pentode with remote cut-off characteristics and is designed for service as a radio-frequency or intermediate-frequency amplifier in a-c or battery operated equipment. Except for capacitances and heater rating the electrical ratings and characteristics of the 58 are the same as those of the 6D6 and 6U7-G.

Cathode: . . . . . . . . . . . . . . Coated Unipotential
Heater Voltage (A-C or D-C) . . . . . 2.5 Volts
Heater Current . . . . . . . . . . . . . . 1.0 Ampere
Envelope: . . . . . . . . . . . . . . . . ST-12 Glass
Base: . . . . . . . . . A6-7 Small 6-Pin Phenolic
Top Cap: . . . . . . . . . . . . . . C1-1 Small Metal

Mounting Position: . . . . . . . . . . . . . . . . Any
Direct Interelectrode Capacitances: *
Grid to Plate (Max) . . . . . . . . . . . 0.007 μμf
Input . . . . . . . . . . . . . . . . . . . . 4.7 μμf
Output . . . . . . . . . . . . . . . . . . . . 6.3 μμf

## PHYSICAL DIMENSIONS

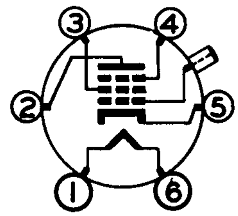



RMA 12-2

## TERMINAL CONNECTIONS

Pin 1 - Heater
Pin 2 - Plate
Pin 3 - Grid Number 2 (Screen)
Pin 4 - Grid No. 3 (Suppressor)
Pin 5 - Cathode and Internal Shield
Pin 6 - Heater
Top Cap - Grid Number 1

## BASING DIAGRAM




RMA 6F
*BOTTOM VIEW*

## MAXIMUM RATINGS

| | Design Center | Absolute | |
|---|---|---|---|
| Plate Voltage | 300 | 330 | Volts |
| Screen (Grid Number 2) Voltage | 100 | 110 | Volts |
| Screen Supply Voltage | 300 | 330 | Volts |
| Grid Bias Voltage | Never Positive | | |
| Plate Dissipation | 2.25 | 2.48 | Watts |
| Screen Dissipation | 0.25 | 0.28 | Watt |
| D-C Heater-Cathode Voltage | 90 | 100 | Volts |

* *With close-fitting external shield connected to cathode and internal shield.*

## CHARACTERISTICS AND TYPICAL OPERATION

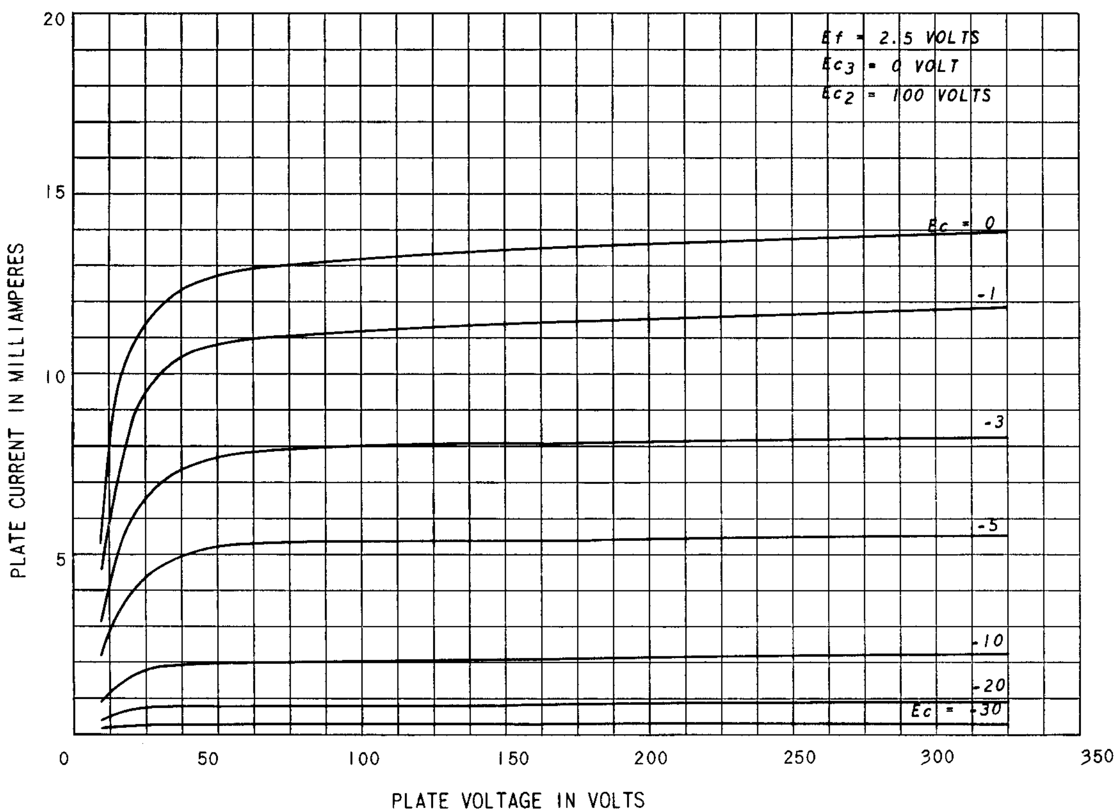
CLASS A AMPLIFIER

| | | | |
|---|---|---|---|
| Heater Voltage | 2.5 | 2.5 | Volts |
| Plate Voltage | 100 | 250 | Volts |
| Screen Voltage | 100 | 100 | Volts |
| Suppressor (Grid No. 3) Voltage ** | 0 | 0 | Volt |
| Grid Bias Voltage | -3 | -3 | Volts |
| Plate Resistance (Approx) | 0.25 | 0.8 | Megohm |
| Transconductance | 1500 | 1600 | Micromhos |
| Grid Bias Voltage § | -50 | -50 | Volts |
| Plate Current | 8.0 | 8.2 | Milliamperes |
| Screen Current | 2.2 | 2.0 | Milliamperes |

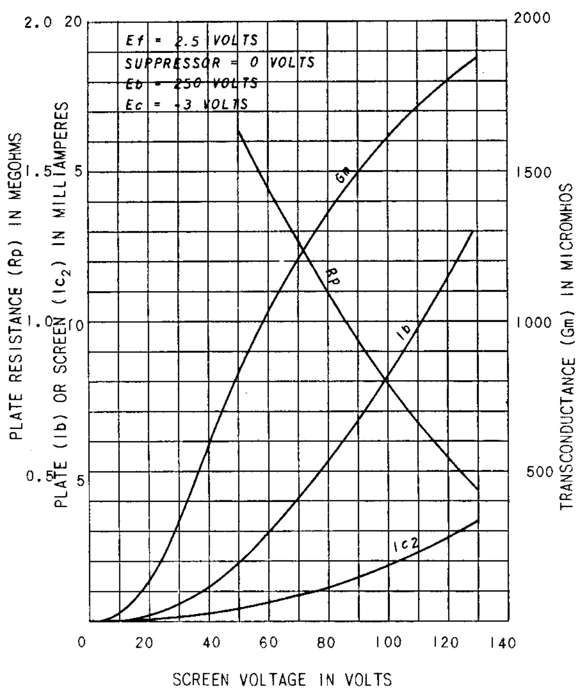
§ *Approximate values for a transconductance of 2 micromhos.*

** *Connected to cathode at socket terminal.*

## AVERAGE PLATE CHARACTERISTICS



## AVERAGE CHARACTERISTICS




## AVERAGE CHARACTERISTICS

